

CLAIMS

1. A multiple particle which comprises a meltable organic solid component (A), wherein the solid component
5 (A) comprises a plurality of organic solid materials each having a different affinity relative to a water-soluble auxiliary component (B), and the water-soluble auxiliary component (B) comprises at least an oligosaccharide (B1).

2. A multiple particle according to claim 1, which
10 comprises a polymer component (A) containing a plurality of polymers, wherein each of the polymers has a different affinity relative to the auxiliary component (B).

3. A multiple particle according to claim 1, wherein the organic solid materials form a polymer alloy.

15 4. A multiple particle according to claim 1, which has a core-shell structure, wherein the core contains a first organic solid material (A1) and the shell contains a second organic solid material (A2).

5. A multiple particle according to claim 4,
20 wherein the shell has a thickness of 10 nm to 1 μ m.

6. A multiple particle according to claim 1, wherein at least one of the organic solid materials is a non-addition polymerization polymer.

7. A multiple particle according to claim 1,
25 wherein the organic solid component (A) comprises a first organic solid material (A1) and a second organic solid material (A2) different in affinity relative to the

auxiliary component (B) from each other, and the ratio (weight ratio) of the first organic solid material (A1) relative to the second organic solid material (A2) is 30/70 to 99/1.

5 8. A multiple particle according to claim 1, wherein the organic solid component (A) comprises

 a hydrophobic polymer (A1), and

 a hydrophilic polymer (A2) having at least one hydrophilic group selected from the group consisting of
10 a hydroxyl group, a carboxyl group, an amino group, an imino group, an ether group, an oxyalkylene group, an ester group and an amide group.

 9. A multiple particle according to claim 8, wherein the hydrophilic polymer (A2) contains at least one
15 member selected from the group consisting of a vinyl acetate-series polymer, a polyvinyl alcohol-series polymer, a polyester-series polymer, a polyamide-series polymer, a polycarbonate-series polymer, a polyurethane-series polymer and a cellulose derivative.

20 10. A multiple particle according to claim 1, which is a spherical particle having an average particle size of 0.1 to 100 μm , a coefficient of variation of the average particle size of not more than 60, and a length ratio of a major axis relative to a minor axis of 1.5/1 to 1/1.

25 11. A composition having a disperse system, which comprises

 a matrix comprising a water-soluble auxiliary

component (B) containing at least an oligosaccharide (B1),
and

a particulate dispersed phase comprising an organic
solid component (A) containing a plurality of organic solid
5 materials, and dispersed in the matrix.

12. A composition according to claim 11, wherein
the organic solid component (A) comprises a first organic
solid material (A1) and a second organic solid material
(A2), and the first material (A1) and the second material
10 (A2) being immiscible with each other and different in
affinity relative to the auxiliary component (B) from each
other.

13. A composition according to claim 11, wherein
the dispersed phase is a spherical dispersed phase having
15 an average particle size of 0.1 to 100 μm , a coefficient
of variation of the average particle size of not more than
60, and a length ratio of a major axis relative to a minor
axis of 1.5/1 to 1/1.

14. A composition according to claim 11, wherein
20 the oligosaccharide (B1) comprises at least a
tetrasaccharide.

15. A composition according to claim 11, wherein
the oligosaccharide (B1) comprises at least one member
selected from the group consisting of a starch sugar, a
25 galactooligosaccharide, a coupling sugar, a
fructooligosaccharide, a xylooligosaccharide, a soybean
oligosaccharide, a chitin oligosaccharide and a chitosan

oligosaccharide.

16. A composition according to claim 11, wherein the oligosaccharide (B1) has a viscosity of not lower than 1 Pa·s when a 50% by weight aqueous solution of the
5 oligosaccharide is measured at a temperature of 25°C by a B-type viscometer.

17. A composition according to claim 11, wherein the auxiliary component (B) comprises the oligosaccharide (B1) and a water-soluble plasticizing component (B2) for
10 plasticizing the oligosaccharide (B1).

18. A composition according to claim 17, wherein the oligosaccharide (B1) shows a melting point or softening point or is decomposed at a temperature higher than each of heat distortion temperatures of a plurality of organic
15 solid materials constituting the organic solid component (A), and the melting point or softening point of the plasticizing component (B2) is not higher than the heat distortion temperature of at least one of the organic solid materials.

20 19. A composition according to claim 17, wherein the plasticizing component (B2) comprises at least one member selected from the group consisting of a saccharide and a sugar alcohol.

20. A composition according to claim 19, wherein
25 the sugar alcohol comprises at least one member selected from the group of erythritol, pentaerythritol, arabitol, ribitol, xylitol, sorbitol, dulcitol and mannitol.

21. A composition according to claim 17, wherein the ratio (weight ratio) of the oligosaccharide (B1) relative to the plasticizing component (B2) is 99/1 to 50/50.

22. A composition according to claim 17, wherein
5 the organic solid component (A) comprises a plurality of polymers, and each of the polymers has a Vicat softening temperature defined by JIS K 7206 of 60 to 300°C; the oligosaccharide (B1) has a viscosity of 3 to 100 Pa·s when the viscosity is measured using a 50% by weight
10 aqueous solution of the oligosaccharide at a temperature of 25°C by a B-type viscometer; and

the auxiliary component (B) has a melt flow rate defined by JIS K 7210 of not less than 1 when measured at a temperature 30°C higher than the minimum point of the Vicat
15 softening temperatures of said polymers.

23. A composition according to claim 11, wherein the ratio (weight ratio) of the organic solid component (A) relative to the auxiliary component (B) is 55/45 to 1/99.

20 24. A process for producing a multiple particle comprising an organic solid component (A) containing a plurality of organic solid materials, which comprises eluting an auxiliary component (B) from a composition recited in claim 11.